

Reply to Office Action of November 1, 2005  
Application No. 10/706,385

**Amendments to the Drawings:**

The attached sheets of drawings include FIGs. 1-13. The sheets replace the drawings previously submitted on April 8, 2004. These sheets are intended to comply with the request of the Office Action to provide an entire set of corrected drawings and to correct two minor typographic errors in FIGs. 6 and 11. Both replacement sheets and annotated sheets showing the changes are attached.

**Remarks**

Claims 1-16 are pending in the present application and stand rejected. The Office Action objected to the drawings on various grounds. The Office Action also objected to a "preliminary amendment" allegedly filed on August 27, 2004 and required that the mention of color drawings made in this amendment be withdrawn. In addition, the Office Action stated that the specification contained a list of references that allegedly should have been submitted in an IDS.

Furthermore, the Office Action rejected claims 1-12 under 35 U.S.C. 112 second paragraph for use of the term "substantially." Claims 1 and 12-16 were rejected under 35 U.S.C. 112, first paragraph, as non-enabling. Claims 1-5, 8, 11, 12, and 16 were also rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,895,439 to Fisher ("the Fisher patent") in view of U.S. Published Application 2005/0035967 to Joffrain ("the Joffrain application"). Claim 6 was rejected under 35 U.S.C. 103(a) as unpatentable over Fisher in view of Joffrain in further view of U.S. Patent No. 6,707,454 to Barg ("the Barg patent"). Claim 7 was rejected under 35 U.S.C. 103(a) as unpatentable over Fisher and Joffrain and in further view of U.S. Patent No. 4,812,976 to Lundy ("the Lundy patent"). Claim 9 was rejected under 35 U.S.C. 103(a) over Fisher in view of Joffrain and in further view of U.S. Published Application 2003/0208323 to Hao ("the Hao application"). Claim 10 was rejected under 35 U.S.C. 103(a) as unpatentable over Fisher in view of Joffrain and in further view of U.S. Patent No. 6,505,140 to Bachrach. Claims 1 and 13 were rejected under 35 U.S.C. 103(a) over U.S. Published Application 2005/0154563 to Hassler ("the Hassler application") in view of Joffrain. Claim 13 was rejected over Fisher and Joffrain in further view of Hassler. Claims 14 and 15 were rejected under 35 U.S.C. 103(a) as unpatentable over Fisher and Joffrain in further view of U.S. Published Application 2003/0182069 to Banes ("the Banes application"). Finally, claims 1-2 were rejected under 35 U.S.C. 103(a) over U.S. Published Application No. 2004/0260178 to Kahn ("the Kahn application") in view of U.S. Patent No. 5,952,576 to Schwarz ("the Schwarz patent").

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The rejections, as they may apply to the claims presented herein, are respectfully traversed.

At the outset, the Applicant by way of the undersigned attorney wishes to thank the Examiner for the interviews on December 7, 2005 and January 30, 2006 conducted for this application. In accordance with the requirements of 37 CFR 1.133(b) and the Manual of Patent Examining Procedure (MPEP) §713.04, the following written statement of the reasons presented at the interviews as warranting favorable action is provided.

Present at the personal interview of December 7, 2005 were Examiners Eric V. Woods and Almis Jankus, and the Applicant's attorney Stephen Favakeh. The Applicant provided an amended set of proposed claims to the Examiner for consideration. The Examiner stated the amended set of proposed claims was allowable over the Fisher and Joffrain combination as well as the Kahn and Schwarz combination because the Applicant's system used x-ray diffraction techniques and not eddy current measurement techniques (as taught by Fisher) or sonograms (as taught by Kahn and Schwarz).

As for the Hassler and Joffrain combination, it was agreed that x-ray diffraction techniques are distinguishable in producing resultant energy inherently including first-order material characteristic information. As described in the application, this information relates to desired first order material characteristics such as strain or grain size. In contrast, the Hassler reference teaches the use of X-ray computer tomography (CT) techniques to obtain second order material characteristic information (i.e., density). Second order information requires further analysis in order to obtain first-order material characteristic information. It was agreed that if the Applicant amended the claims to include the recitation of first order material characteristic information, the claims would be allowable over the Hassler and Joffrain combination.

Accordingly, a new set of proposed claims was sent to the Examiner on January 26, 2006 amended to reflect the subject matter agreed as distinguishing the relied upon art. This new set of amended claims (also reproduced and set forth in this response) was discussed in the telephonic interview of January 30, 2006. Present at this interview were Examiner Eric Woods and the Applicant's attorneys Stephen Favakeh and Timothy Baumann. During the interview, it was agreed that the new set of proposed claims was allowable over the prior art of record.

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The Applicant wishes to thank the Examiner for his indication of allowance afforded during the interview.

Turning now to the drawing objections, the Office Action objected to the drawings on various grounds. As requested in the Office Action, the Applicant has amended FIGs. 6 and 11 to correct two minor typographical errors. In addition, the Applicant herewith this response resubmits the entire set of figures as requested by the Office Action.

The Office Action also objected to the color drawings submitted by the Applicant and stated that language added to the specification (indicating the presence of color drawings) needed to be withdrawn since a Petition to Accept the Color drawings has yet to be granted. Separate from this Response, the Applicant will submit a new Petition (and/or any other needed materials) so that the Petition can be granted. Consequently, since the Applicant is awaiting the grant of the Petition, the cited language will not be withdrawn at this time.

The Office Action alleged that the drawings were incomplete and stated that "pages 10-11 of the specification state that many necessary elements are omitted." At pages 10-11 of the specification, the Applicant stated that "common but well-understood elements that are useful or necessary in a commercially feasible embodiment are typically not depicted in order to facilitate a less obstructed view of these various embodiments of the present invention." Thus, the Applicant stated that common elements that are useful or necessary in a *commercially feasible* embodiment are typically not shown for clarity purposes. Nevertheless, all required elements have been shown in the drawings in the subject application.

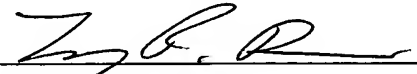
The Office Action stated that the specification contained a list of references that may need to be submitted in an IDS. Specifically, the Office Action stated that "applicant needs to submit the numbers of relevant copending applications (as note at page 18, lines 22-28) on an IDS under 37 CFR 1.97 and 1.98." The Applicant herewith submits a supplemental IDS citing these two applications, which have now issued as patents. Furthermore, the specification has been amended to reflect that these two applications have now issued as patents.

In view of the foregoing amendments and remarks, the Applicant respectfully requests that the application be allowed to issuance.

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The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135.

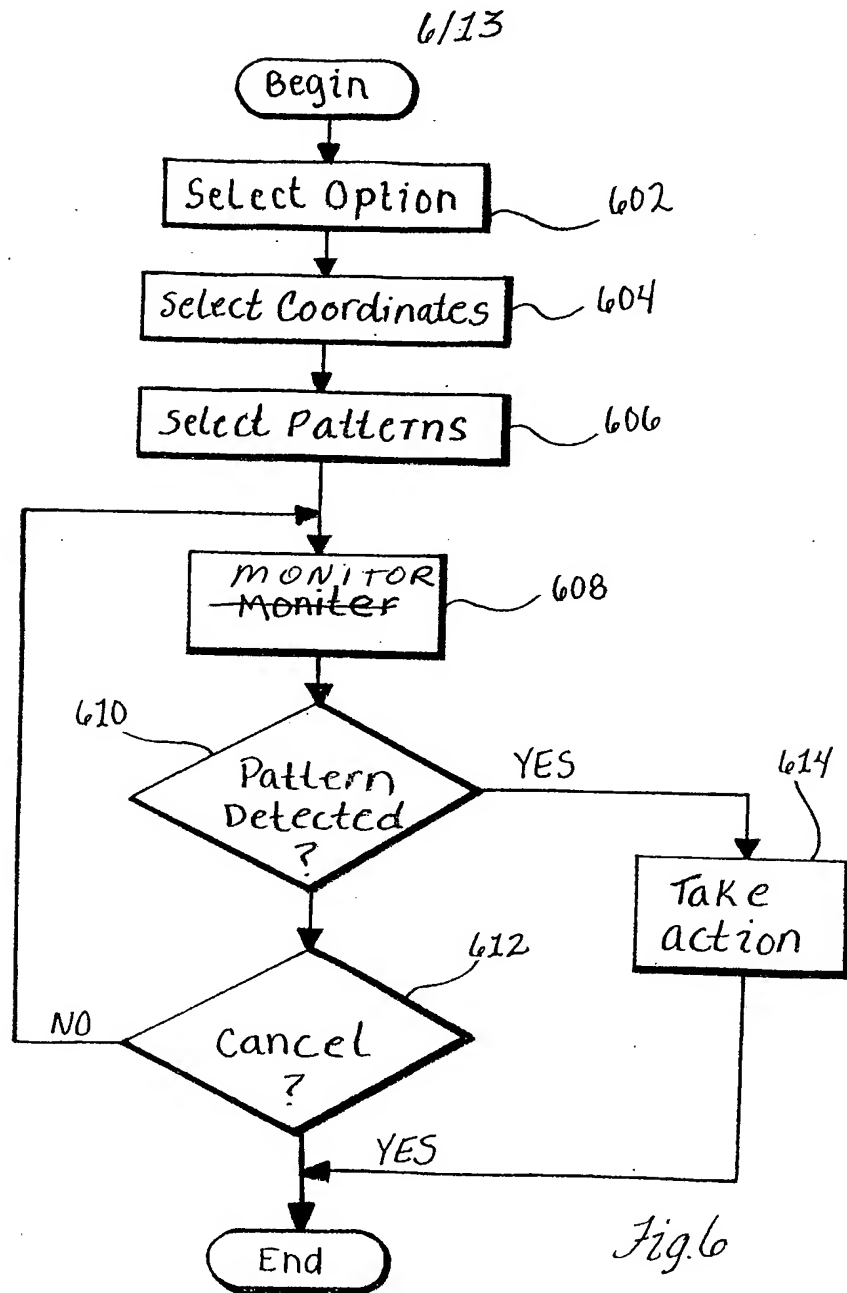
Respectfully submitted,  
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ANNOTATED SHEET SHOWING CHANGES



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10/13

